WQB "Wide Aperture Quad" for Main Injector

1 December 2005, 9:00 AM
IB2 conference room

Attendees: Linda Alsip, Bruce Brown, Weiren Chou, TJ Gardner, Dave Harding, Dave Johnson, Vladimir Kashikhin, Bill Robotham, Mike Tartaglia

Measurements

Hank was unable to attend, but had provided graphs form the latest trim coil measurements. In these measurements he had run the trim coil to buck the main coil (rather than add to it) with the main coil at 200 and 1000 A. The hysteresis behavior seemed to be somewhat surprising, but understanding the exact sequence of currents would have required more patience than was immediately available. An additional measurement was requested with a negative trim current around a base current of 2800 A. The comparison of dGL/dI for the trim and main coils with a negative excursion would also be interesting.

Production measurements will include excitation and harmonics at x= -0.98", 0", and +0.98". Given that the polarity of the trim coil can be determined by visual inspection and the inductance provides a tight test on the integrity, there was not a great clamor for a trim coil production measurement. Dave promised that all trim coils would be wired the same and that there would be a sticker on each magnet useful to a physicist in determining the appropriate polarity for an F or a D quadrupole.

Design issues

None.

Fabrication

-WQB001 Needs square foot, maybe MTF
-WQB002 at MTF, then add foot and flanges
-WQB003 Needs foot and flanges
-WQB004 at MTF, then add foot and flanges
-WQB005 Physically complete but needs MTF measuring
-WQB006 Insulating manifold then add foot and flanges
-WQB007 Being manifolded, needs flanges
-WQB008 has two coils ready and two more being impregnated
-WQB009 Has four coils wound which are being insulated

Schedule

The availability first magnet depends on whether MTF has a production set of measurements on WQB001. If they do, then it will be ready for installation within days. If not, it of WQB005 can be ready a day or two after WQB002 comes off the test stand.

The current schedule for 7 magnets is 12 January.

The current schedule for 9 magnets is 9 February.

Next meeting will be Thursday, 15 December 2005, at 9:00 in the Industrial Building 2 conference room.